

**MEHR CHAND MAHAJAN DAV College for Women,
Sector – 36-A, Chandigarh
Monthly Teaching Plans [FIFTH (Odd) Semester]
Session: 2022-23**

Name of the Teacher/s: Dr. Purnima Bhandari and Dr. Jasleen Kaur

Department: Botany

Class: B.Sc. (Med.) THIRD year

Subject: Paper A (PLANT PHYSIOLOGY-I; Subject Code: 0454)

Sections: A and B

Month	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
August	18.8.2022	31.8.2022	Plant Water Relations: Importance of water to plant life; physical properties of water; imbibition, diffusion, Osmosis, Plasmolysis and Deplasmolysis, concept of osmotic potential, water potential and pressure potential Absorption of water, active and passive mechanism of water absorption; transport of water, mechanism and theories to explain ascent of sap; transpiration types.	Lecture Method – PPT/Notes – Assignments
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
September	01.09.2022	30.09.2022	Mechanism of opening and closing of stomata, mechanism of transpiration, factors affecting transpiration, anti-transpirants; Mineral nutrition: Hydroponics and its importance; essential macro and micro elements, essentiality criteria, deficiency symptoms and their role;	Lecture Method – PPT/Notes – Assignments

Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
October	01.10.2022	31.10.2022	Mineral uptake; mechanism of mineral uptake (active, passive absorption and modern concepts); Nitrogen Metabolism: Biological nitrogen fixation; Importance of nitrate reductase and its regulation; ammonia assimilation. Lipid Metabolism: Structure and function of lipids; β – oxidation; saturated and unsaturated fatty acids.	Lecture Method – PPT/Notes – Assignments
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans Mid Semester Test				
November	01.11.2022	25.11.2022	Proteins: Classification, role and structure (primary, secondary and tertiary) of proteins. Basics of enzymology: Discovery and nomenclature; classification, structure, properties, factors affecting enzyme activity, mechanism of enzyme action. Classification, structure, properties, factors affecting enzyme activity, mechanism of enzyme action. REVISION TESTS	Lecture Method – PPT/Notes – Assignments
December			P.U. Semester Examination	

**MEHR CHAND MAHAJAN DAV College for Women,
Sector – 36-A, Chandigarh
Monthly Teaching Plans [SIXTH (Even) Semester]
Session: 2022-23**

Name of the Teacher/s: Dr. Purnima Bhandari and Dr. Jasleen Kaur

Department: Botany

Class: B.Sc. (Med.) THIRD year

Subject: Paper A (PLANT PHYSIOLOGY-II; Subject Code: 0550)

Sections: A and B

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
January	16.01.2023	31.01.2023	Photosynthesis: Significance, historical aspect; photosynthetic pigments; action spectra and enhancement effects; concept of two photosystems, cyclic and non-cyclic photophosphorylation. Calvin cycle; C4 pathway; CAM plants; photorespiration; factors affecting photosynthesis; transport of organic substances: Mechanism of phloem transport, source-sink relationship, factors affecting translocation.	Lecture Method; PPT Charts; Notes – Assignments
February	01.02.2023	28.02.2023	Respiration: ATP – The biological energy currency; aerobic and anaerobic respiration; Krebs cycle; electron transport mechanism (Chemiosmotic theory); redox potential; oxidative phosphorylation;	Lecture Method; PPT; Charts; Notes – Assignments

			pentose phosphate pathway; quotient,	respiratory	
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans Mid Semester Test					
March	01.03.2022	30.03.2022	Growth and development: Definitions; phases of growth and development; kinetics of growth, factors affecting growth; Biotechnology: Functional definition; basic aspects of plant tissue culture, its applications and somatic hybridization.		Lecture Method;PPT; Charts;Notes – Assignments
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans					
April	01.04.2023	29.04.2023	Plant movements; the concept of photoperiodism, physiology of flowering; florigen concept; roles of plant hormones– auxins, gibberellins, cytokinin's, abscisic acid and ethylene, history of their discovery. Revision/doubt clearing SESSIONS		Lecture Method –PPT; Charts;Notes – Assignments
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans					
May			P.U. Practical/ Examination	Theory	

**MEHR CHAND MAHAJAN DAV College for Women,
Sector – 36-A, Chandigarh
Monthly Teaching Plans [FIFTH (Odd) Semester]
Session: 2022-23**

Name of the Teacher/s: Dr. Ruby Singh and Ms. Parool Kaushik

Department: Botany

Class: B.Sc. (Med.) 3rd year

Subject: Paper B (PLANT ECOLOGY; Subject Code: 0455)

Sections: A +B

Month	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
August	18.8.2022	31.8.2022	Definition, scope, relationship with other sciences, Plant Environment: Climatic Factor,	Lecture Method;PPT; Charts;Notes – Assignments
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
September	01.09.2022	30.09.2022	Edaphic, topographic and biotic factors affecting growth and distribution of plants	Lecture Method;PPT; Charts;Notes – Assignments
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
October	01.10.2022	31.10.2022	Ecosystem : Concept, structure; abiotic and biotic components; trophic levels, food chain, food web, Ecological pyramids, energy flow, biogeochemical cycles of carbon, nitrogen and water.	Lecture Method;PPT; Charts;Notes – Assignments
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans Mid Semester Test				
November	01.11.2022	25.11.2022	Community Ecology: Community characteristics, frequency, density cover, life forms, biological Spectrum; ecological succession – Hydrosere and Xerosere , Revision Classes Applied Ecology : a) Air, water, soil pollution and their control. b) Conservation and	Lecture Method;PPT; Charts;Notes – Assignments

			management of natural resources. (renewable and non-renewable): Revision Classes	
December			PU Semester examinations	

**MEHR CHAND MAHAJAN DAV College for Women,
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Monthly Teaching Plans [SIXTH (Even) Semester]
Session: 2022-23**

Name of the Teacher/s: Dr. Ruby Singh and Ms. Parool Kaushik

Department: Botany

Class: B.Sc. (Med.) 3rd year

Subject: Paper B (ECONOMIC BOTANY; Subject Code: 0551)

Sections: A+ B

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans semester				
January	16.01.2023	31.01.2023	Crop production: Area of cultivation, soil requirement, cultivation practices and high yielding varieties of: i) Cereals (Wheat, Rice and Maize) ii) Fibres (Cotton) iii) Vegetables (Potato)	Lecture Method – Notes/PPT/ Assignments;
February	01.02.2023	28.02.2023	Crop production: Area of cultivation, soil requirement, cultivation practices and high yielding varieties of: i) Fruits (Mango, Grapes, Lemon) ii) Sugar-yielding plants (Sugarcane) iii) Oil-yielding plants (Groundnut, Mustard) Elementary knowledge of the following plants (Botanical names, families, parts used and economic importance) : i) Wheat, Maize, Rice, Moong, Gram (Food).	Lecture Method – Notes/PPT/ Assignments

Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans Mid Semester Test				
March	01.03.2022	31.03.2023	<p>Botanical names, families, parts used and economic importance): Teak, Shisham, Deodar, Sal (Timbers). Elementary knowledge of the following plants (Botanical names, families, parts used and economic importance):</p> <p>iii) Cotton, Jute, Coir, Flax (Fibres). Elementary knowledge of the following plants (Botanical names, families, parts used and economic importance) :</p> <p>Fennel, Coriander, Turmeric, Ginger, Mint, Clove (Spices and Condiments).</p>	Lecture Method – Notes/PPT/ Assignments
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
April	01.04.2023	29.04.2023	<p>Elementary knowledge of the following plants (Botanical names, families, parts used and economic importance) :</p> <p>i) Bamboo, Eucalyptus (Pulp plants). ii) Liquorice, Belladonna, Aconite, Ashwagandha, Arjun, Poppy, Amla (Medicinal plants). iii) Tea and Coffee (Beverages). Forestry: Forest conservation, wood seasoning and its preservation.</p> <p>Revision/doubt clearing</p>	Lecture Method – Notes/PPT/ Assignments

			Sessions	
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
May			P.U. Practical/ Theory Examination	